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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,334	11/08/2001	Victor Morozov	MOROZOV=2C	5128

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EXAMINER

FORMAN, BETTY J

ART UNIT PAPER NUMBER

1634

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/986,334	MOROZOV ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	BJ Forman	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-30 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/446,188.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>11/01</u> | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II, Claims 7-30 in papers filed 3 March 2003 is acknowledged.

Claims 1-6 are canceled.

Claims 7-30 are pending.

### ***Claim Objections***

2. Claim 7 is objected to because of the following informalities:

The claim is drawn to an apparatus comprising two components i.e. an electrosprayer and an electrophoretic means. Because the apparatus is drawn to two components an "and" is required following the first semicolon.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 8, 12, 13 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 8 is indefinite because it limits the apparatus to an electrostatic device coupled to the substrate. However, the substrate of Claim 7 is not recited as being a component of the apparatus. Therefore, it is unclear whether the electrostatic device is a component of the apparatus or the substrate.

b. Claim 8 is further indefinite for the recitation "a first electrostatic device" because it is unclear whether there is a second electrostatic device.

c. Claim 12 is indefinite for the recitation "the mask reaches the second potential by incorporating charge..." because the recitation is functional language which does not describe or define structural limitations. Therefore, it is unclear whether the recitation limits the structural elements of the apparatus.

d. Claim 13 is indefinite for the recitation "the non-conducting material" because the recitation lacks proper antecedent basis in Claim 12.

e. Claim 23 is indefinite for the recitation "the capillary tip" because the recitation lacks proper antecedent basis in Claim 11.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Seaver et al (U.S. Patent No. 4,748,043, issued 31 May 1988).

Regarding Claim 7, Seaver et al disclose an apparatus for depositing a sample onto a substrate the apparatus comprising: an electrosprayer and an electrophoretic means (i.e. voltage supply) Column 3, line 66-Column 4, line 59). Furthermore, Seaver et al teach the apparatus creates a mist of charged particles (Column 3, lines 42-55) in a gas fill space i.e. the space between the needle (#11) and the substrate (#30). And they teach the electrophoretic means creates a first and second potential (Column 5, lines 52-66).

The claim contains numerous recitations of the functionality of the apparatus i.e. "for creating from the solution, in a gas-filled space, a mist of charged particles including the non-volatile biologically functional and/or biologically active substance"; "for creating, selectively by illumination or non-illumination, a first potential, attractive to the charged particles, on the deposit areas of the substrate surface, and a second potential, not attractive to the charged particles, on areas of the substrate surface other than the deposit areas.

The courts have stated that claims drawn to an apparatus must be distinguished from the prior art in terms of structure rather than function see *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (see MPEP, 2114).

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Regarding Claim 8, Seaver et al disclose the apparatus comprising an electrostatic device coupled to the substrate i.e. the extractor plate is positioned between the needle and the substrate whereby the extractor plate is coupled to the substrate (Column 5, lines 19-51).

7. Claims 7, 8 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Pui et al (U.S. Patent No. 6,399,362, having priority to 60/049,444, filed 12 June 1997).

Regarding Claim 7, Pui et al disclose an apparatus comprising an electrosprayer and electrophoretic means (Column 7, line 58-Column 8, line 14 and Fig. 1). Furthermore, Pui et al teach the apparatus creates a mist of charged particles in a gas fill space i.e. the space between the orifice (#9) and the substrate (#11). And they teach the electrophoretic means creates a first and second potential (Column 8, lines 28-9-14).

Regarding Claim 8, Pui et al disclose the apparatus comprising an electrostatic device coupled to the substrate (Column 17, lines 40-52 and Fig. 3).

Regarding Claim 11, Pui et al disclose an apparatus comprising an electrosprayer, an electrostatic device and a mask i.e. control member (#70) whereby the particle are focused i.e. controlled (Column 17, lines 61-67 and Fig. 4).

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**Conclusion**

8. Claims 9, 10 and 12-30 are free of the prior art of record and may be placed in condition for allowance following resolution of the above rejections.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

  
BJ Forman, Ph.D.  
Primary Examiner  
Art Unit: 1634  
August 20, 2003